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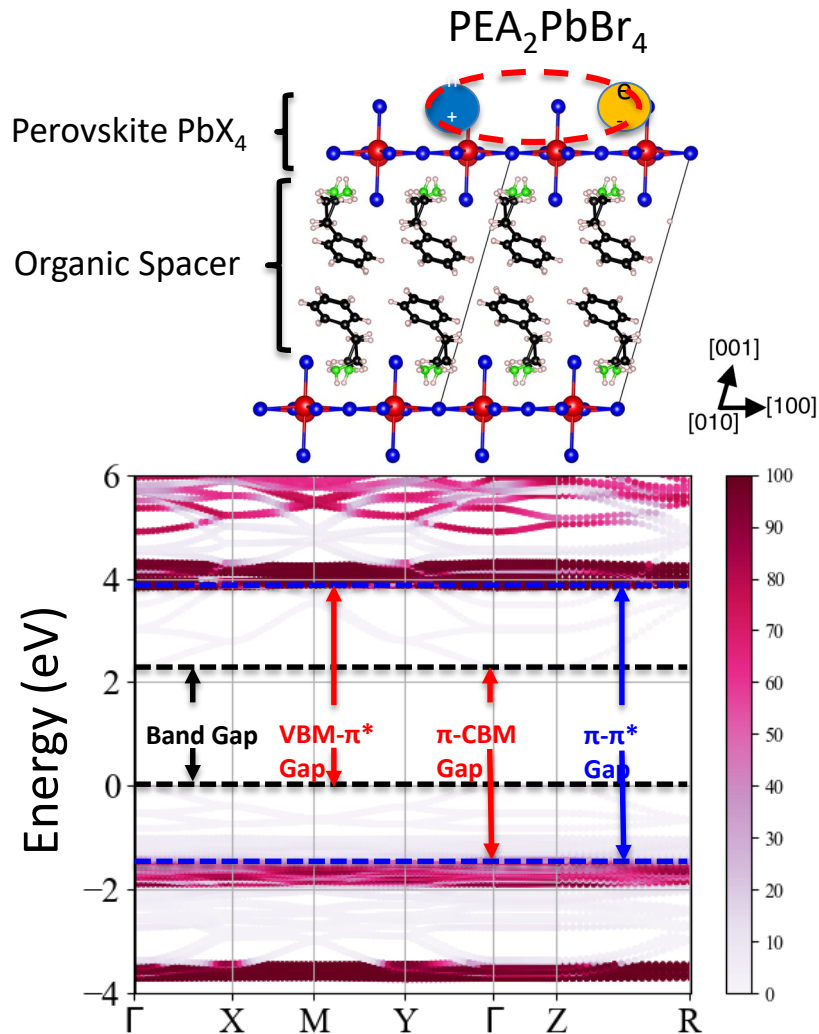
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RATIONAL DESIGN OF HALIDE PEROVSKITES FOR NEXT GENERATION⁶ GAMMA-RAY DETECTION



- $\text{PEA}_2\text{-PbBr}_4$ band gap ~ 2.1 eV
- Near gap region dominated by perovskite centered orbitals.
- Organic states occur well below and above the band frontier energies with a π - π^* gap of ~ 6 eV
- The π -CBM and VBM- π^* gaps remain just outside the visible photon energy range at just under 4 eV each.

W18_gammaray
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J. Leveillee, C. Katan, J. Even, A.D. Mohite, A. Schleife, S. Tretiak, and A.J. Neukirch, *Phys. Rev. Materials*, **2**(10), 105406 (2018)



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